

## **Amendments to the Claims:**

1. (Currently amended) A temperature-sensitive state-changing hydrogel composition, comprising:

1-10 wt % of branched gelation polymer, the branched gelation polymer being at least one water soluble polysaccharide polymer selected from the group consisting of galactomannan, glucomannan, guar gum, locust bean gum and pluronic;

0.5-5 wt % of electrolyte gelation polymer, the electrolyte gelation polymer being at least one polysaccharide electrolyte polymer selected from the group consisting of agar, algin, carrageenan, xanthan and gelan;

0.5-5 wt % of skin-communication enhancer, the skin-communication enhancer being at least one polysaccharide selected from the group consisting of chitosan derivatives, proteoglycans, elastin, collagen, and hyaluronic acid, or protein;

1-10 wt % of natural biomaterial, the natural biomaterial being a vegetable, animal, or mineral natural extract extracted from aloe, green tea, ginseng, wood vinegar, pine needles, ginko leaves, propolis, mulberry leaves, or silkworms;

3-30 wt % of polyhydric alcohol, the polyhydric alcohol being propylene glycol or glycerine in a form of a water soluble liquid;

1-10 wt % of functional additive, the functional additive being an additive capable of providing stability or beauty functionality to the hydrogel, and is methylparaben, propylparaben, kojic acid,  $\alpha$ -hydroxy acid, imidazolidinylurea, Twin 80 or retinol; and

30-93 wt % of water based on a total weight of the composition, wherein, the hydrogel is transformed into a fluid state at 30-50°C 40-50°C.

Claims 2-7 (Canceled).

8. (Currently amended) A method of producing a hydrogel composition, comprising:

mixing 1-10 wt % of a branched gelation polymer selected from the group consisting of galactomannan, glucomannan, guar gum, locust bean gum and pluronic, 0.5-5 wt % of an electrolyte gelation polymer selected from the group consisting of agar, algin carrageenan, xanthan and gelatin, 1-10 wt % of a functional additive selected from the group consisting of chitosan, chitosan derivatives, proteoglycans, elastin, collagen, and hyaluronic acid, and 3-30 wt % of a polyhydric alcohol, with each other;

adding 30-93 wt % of water to the mixture at room temperature;

heating the resulting mixed solution to 45-95°C to produce a gel solution;

adding 1-10 wt % of natural biomaterial extracted from aloe, green tea, ginseng, wood vinegar, pine needles, ginko leaves, propolis, mulberry leaves, or silkworms to the gel solution;

adding 0.5-5 wt % of a skin-communication enhancer selected from the group consisting of methylparaben, propylparaben, kojic acid,  $\alpha$ -hydroxy acid, and retinol to the gel solution while maintaining the gel solution at 45-95°C; and

cooling the resulting gel solution to room temperature, wherein the hydrogel composition has the ability to transform to a fluid state at 30-50°C ~~40-50°C~~.